1 Introduction

Charged with the responsibility of providing an integrated and efficient transportation system for the citizens of Louisiana, the Louisiana Department of Transportation and Development (DOTD) views its mission as:

"To serve the State and its population by enhancing quality of life and fostering economic growth by managing resources, planning, improving safety, preserving and operating infrastructure in an efficient manner, and advancing mobility and access, all in an environmentally-sensitive manner."

This mission statement not only relates transportation and economic development, but also requires that the department's activities enhance quality of life and remain sensitive to the environment.

DOTD is composed of the Executive Office of the Secretary, the Office of Management and Finance, the Office of Planning and Programming, the Office of Engineering, the Office of Operations, and the Office of Public Works and Intermodal Transportation. The officers of DOTD are the Secretary, Deputy Secretary, Undersecretary, Assistant Secretary of Planning and Programming, Chief Engineer of the Office of Engineering, Assistant Secretary of the Office of Operations, and the Assistant Secretary of the Office of Public Works and Intermodal Transportation.

One of the major functions of the department is its Project Delivery Process, which defines, classifies, and establishes annual and long range programs and projects within the department's budget partition categories of:

- **System Preservation**
  - Structural Repairs and Replacements
  - Pavement Reconstructions
  - Overlays
- **Operations and Motorists Services**
  - Intelligent Transportation Systems (ITS)

    - Weigh Stations, Rest Areas, Movable Bridges, Ferries
    - Traffic Control Devices
- **Traffic Safety**
    - Spot Safety Improvements
    - Railroad-Highway Crossing Improvements
    - Area-Wide or Corridor Safety Improvements
- **New Capacity**
    - New Roadway Construction
    - Adding Travel Lanes
    - New Interchanges
- **Dedicated Programs**
    - Urban System Program
    - Federal Earmarks
    - Enhancement Program

For many years, DOTD has been directed by the provisions of RS 48:228-233 following a Priority Program of highway planning and construction. Each year the DOTD submits to the Legislature a "Program of Construction" to be commenced in the ensuing fiscal year. The "Program of Construction" is based upon the anticipated revenues to be appropriated by the Legislature and listed in order of priority for the projects in each of the budget partition categories. In addition, DOTD annually provides the legislature with a list of projects proposed to be commenced or currently in the various stages of planning and development for the following four years. This list is subject to change by DOTD until the project has obtained an environmental decision; an implementation funding plan is established; project plans and specifications are completed; right-of-way and utility agreements are obtained; and the project is ready for construction.

1.1 Traditional Program and Project Delivery Process

Traditionally, DOTD's main objective has been to deliver an annual program by using all allocated funds for the particular year. The main performance indicator has been to use all available federal dollars. Although this objective is appropriate and the department's accomplishments in this area are commendable, the notion of timely delivery of the scheduled (promised) project has not been the priority in the Project Delivery process. Consequently, our customers—the public—have not been satisfied with the department's performance. The public demands that the department deliver scheduled projects:

- On time
- Within budget
- At the highest level of quality
- With a minimum of disruptions

The above criteria apply to the entire project life cycle; i.e., from planning to the end of construction. DOTD's traditional project delivery process does not meet these demands of the public. The current process produces projects based on the "just in time delivery" schedule. That is, as projects become ready for construction, they are let into contract without much effort to balance the mix of projects and geographic distribution, or to consider the project's impact on the public before it is let into construction.

Often, projects are selected and added to an annual program without full consideration of the impact of this action on the size of the program and the required capability for its delivery. The traditional development process breaks a project down into specialized tasks that are performed by functional groups in the department. In the vernacular of current organizational thinking, these function groups are often referred to as "silos." The resulting process is similar to an assembly line. The project leaves the assembly line and enters one of the functional silos. When the work of that functional silo is completed, the project goes back onto the assembly line until it is ready for the next required silo. This process continues until the project is ready to be bid. The project is then bid and constructed using the available funding at the time, while construction project timing, contractor availability, or project impact on the corridor are not routinely considered.

As a result, the traditional project delivery process results in a:

- Program that is too big to accomplish
- Use of funds on projects that will not be constructed
- Project delivery time that is too long and overly flexible
- Disregard for construction timing, contractor availability, and DOTD inspection resources
- Lack of use of innovative financing

1.2 New Program and Project Delivery Process

Committed to meeting the demands of its customers, DOTD has re-engineered the program and project development system. The new system requires DOTD to embrace new processes,

concepts, and authorities while divesting itself of traditional organizational structures, methods, and bureaucracies, thus eliminating the deficiencies that have resulted from the traditional system.

This new system was developed by the DOTD divisions and sections that coordinate the program and the projects. The new process defines the classification of projects to be included in the program, employs the concept of program managers, uses a team approach in the entire project delivery process, applies project management principles, and provides for feedback into the program by the system operators.

Projects are now divided into the following classifications:

- System preservation
- Capacity
- Safety
- Operations
- Other smaller yet critical classifications

Each category and sub-category is labeled as a program containing several projects. Each category has an annual construction and design/development budget with a requirement that project costs do not exceed the annual budget. Chapter 3 outlines the new project development process.

1.3 Key Terms

Although the entire DOTD Program Development and Project Delivery System is explained in detail in the remaining chapters of this manual, defining a few of the important functions and terms will improve the usefulness of the manual and help users fully comprehend the system.

Project Management: Project management is a systematic process of planning, budgeting, scheduling, staffing, directing, and controlling a set of related and interdependent activities to achieve a desired objective.

Program Manager (PGM): The term program refers to a set of projects that as a whole have a specific purpose and objective. For example, efforts to improve highway safety statewide is considered a program. Such a program usually will consist of a number of related projects that each have an independent utility and purpose but meet a much higher objective in combination.

The program manager (PGM) is responsible for meeting the overall goals of the program and its final delivery. While not directly responsible for each project that is part of the program (unless the PGM is also a project manager), the PGM must be aware of the status of each project and anticipate potential problems that could delay one of the projects in the program. The PGM should assist the project manager in resolving problems that could delay program delivery. At times when a particular project cannot be kept on schedule, it is the PGM's responsibility to review other projects in the program and take necessary steps in making schedule adjustments to ensure the overall goals of the program are not compromised. When conflicting priorities endanger the program's success, the PGM should involve the upper level management in resolving the issues and putting the program back on track.

Project Manager (PM): The project manager is responsible for carrying out the individual projects by insuring that all project activities are completed in accordance with time and budget requirements and at the highest level of quality.

Project Team: The project team is an assembly of specialists that come together to work on a specific project. Each team member is selected because of their unique talents and capabilities.

DOTD Highway Project Selection Process: A formalized process through which competing projects are prioritized and funded.

Program and Project Management System (PPMS): A computerized system for project scheduling, monitoring, and control. The system tracks project time and cost, and produces reports on the project progress.

Project Plan: A document summarizing the necessary steps required for the successful management of a project.

Estimating Process: A formalized process to provide an accurate estimate of the project cost as the project moves through various stages of development.

Project Delivery Steering Committee: A standing committee for the purpose of advising and making policy recommendations to the DOTD Secretary on all aspects of program finance and budget.

Project Delivery Date (PDD): PDD is the project design and development completion date. It is the date the project leaves Stage 3 (Final Design Process) and enters Stage 4 (Letting).

Chapters 2 and 3 of this manual provide an overview of the entire system and detail the theory and departmental philosophy that are critical for the success of this new system. Chapters 4 through 10 provide the details and supporting documents for the individual stages of the process and should be considered as the reference for all those involved in the process.

The appendices also provide critical information that should be referred to throughout the process. Appendix I describes the Project Plan, which is the framework for the entire project and should be referenced during all stages. The estimating process is discussed in detail in Appendix II, and Appendix III presents the objectives and procedure of the Project Delivery Steering Committee.